

**BY ORDER OF THE COMMANDER**  
**HEADQUARTERS 377TH AIR BASE WING (AFMC)**  
**KIRTLAND AIR FORCE BASE,**  
**NEW MEXICO 87117-5606**

**KAFB INSTRUCTION 91-205**

**15 JULY 2000**

**Safety**

**LOCKOUT/TAGOUT PROGRAM**



**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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This instruction implements Air Force Policy Directive 91-2, *Safety Programs*. This instruction establishes procedures and requirements for lockout/tagout of hazardous energy sources. It establishes the requirements for a written program according to 29 CFR 1910.147, *The Control of Hazardous Energy Lockout/Tagout*, Occupational Safety and Health Administration (OSHA) Standard, and Air Force Occupational Safety and Health (AFOSH) Standard 91-45, *Hazardous Energy Control and Mishap Prevention Signs and Tags*. This instruction applies to the 377th Air Base Wing and all associate units on Kirtland Air Force Base who work on hazardous energy sources or equipment.

**SUMMARY OF REVISIONS**

This document is substantially revised and must be completely reviewed.

**1. General.** This instruction shall be used to ensure that machines or equipment are isolated from all potentially hazardous energy and locked out and or tagged out before qualified personnel perform any servicing or maintenance activities where the unexpected energization, start-up, or release of stored energy could cause injury to employees. Organizations desiring more stringent measures may supplement this instruction with a unit operating instruction.

**2. References:**

- 2.1. AFOSH Standard 91-45, *Hazardous Energy Control and Mishap Prevention Signs and Tags*.
- 2.2. CFR 1910.145, *Specifications for Accident Prevention Signs and Tags*
- 2.3. 29 CFR 1910.147, *The Control of Hazardous Energy (Lockout/Tagout)*
- 2.4. CFR 1910.333, *Selection and Use of Work Practices*

**3. Definitions.** Terminology and definitions as used in this instruction shall be the same as found in AFOSH Standard 91-45. Additionally, the following definitions apply:

- 3.1. Lockout/Tagout: The two primary methods used to de-energize equipment or machinery during maintenance or servicing.
- 3.2. Lockout: Physically interfering with the ability of the hazardous energy source being activated by use of a padlock or other physical device.
- 3.3. Tagout: The identification of hazardous energy sources by use of an approved tag, alerting personnel not to apply energy source to the equipment/machine. Tagout device attachment means will be of a non-reusable type, attachable by hand, self-locking, and a minimum unlocking strength of not less than 50 pounds.
- 3.4. Servicing and Maintaining: This includes installing, setting up, adjusting, inspecting, modifying, lubricating, cleaning, unjamming, and tool changing.

**4. General Requirements :**

- 4.1. Personnel who are involved in servicing or maintaining machines/equipment where the unexpected energization or start-up of the machine/equipment or the release of stored energy could cause injury to personnel must be trained according to AFOSH Standard 91-45 and 29 CFR 1910.147, whichever is more stringent.
- 4.2. Every authorized person who is doing work on a piece of machinery or equipment will lockout and tagout the hazardous energy source prior to starting work to prevent the start-up or release of energy by mistake. Authorized individuals will place a padlock or other device on the switches or the power sources after they are placed in the off position. These individuals will fill out An AF Form 979, **Danger Tag**, and attach it at the same point.
- 4.3. Normal minor activities that take place on a daily basis are excluded if they are routine, repetitive, and integral to the use of equipment. However, alternate measures that provide effective protection will be employed. The concept advocates that if you are going to do work on a piece of equipment you need to be protected to prevent the start-up or release of energy by mistake.
- 4.4. Machinery or equipment that is incapable of being locked out will be tagged out. The person performing the work on the machinery or equipment will put a completed tag on the power source switch that states, "Danger" (AF Form 979). The tag will be secured with a self-locking and non-releasable attachment that has a minimum unlocking strength of no less than 50 pounds. These devices shall be attached in such a manner as to interfere with the operation of the energy-isolating device. Where a tag cannot be attached directly to the energy isolating device, the tag shall be located as close as is safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.
- 4.5. Locking out machines or equipment is a more positive step than putting a tag on it. For this reason, if it can be locked out, then it will be locked out. Equipment that is connected by a cord and plug may be unplugged if the person performing the maintenance or servicing has complete control over the plug, maintains visual contact, completes an AF Form 979, and attaches it to the plug end of the cord.

4.6. Lockout/Tagout devices will be standardized in at least one of the following criteria: color, shape or size.

4.7. Machinery and equipment that operates from multiple energy sources; i.e., combination of electrical, hydraulic, pneumatic, chemical, or mechanical energy requires documented procedures attached to each piece of machinery/equipment. These procedures must specify the types and locations of energy-isolating devices. Isolation devices include padlocks, lockout hasps, valve lockout covers, ball lockouts, circuit breaker lockouts, switch and plug lockouts, etc.

4.8. An appropriate lockout device is the key type padlock with only one key. A two-key method may be used if the second key is maintained by the supervisor in a separate place and written procedures are in place as to when the supervisor may use his/her key. The padlock and tag (AF Form 979) must bear the following minimum information:

4.8.1. Lockout use only.

4.8.2. First initial, last name.

4.8.3. Organization, work center, and phone.

4.9. When a lock or tag is attached to an energy-isolating device, only the person, supervisor, or the designated representative who initially installed the lock or tag may remove it, and it will never be bypassed, ignored, or otherwise defeated.

## 5. Responsibilities:

5.1. Base Safety Office (377 ABW/SE) will:

5.1.1. Assist supervisors in making decisions, if necessary, as to whether machinery or equipment requires lockout/tagout.

5.1.2. Conduct inspections of Lockout/Tagout Program as required by AFOSH Standard 91-45.

5.2. Commanders, supervisors, and functional managers will:

5.2.1. Train and certify those authorized persons requiring lockout/tagout training annually or whenever there is a change in processes, procedures or assignments.

5.2.2. Sign the AF Form 55, **Employee Safety and Health Record**, upon completion of Lockout/Tagout Training. When unit's use computerized information management systems, training may be documented in the subsystem.

5.2.3. Conduct a survey of their work areas to locate and identify all machines/equipment requiring lockout/tagout.

5.2.4. Ensure during surveys that all multi-source isolating devices shall be located and identified to be certain which switches, valves, or other energy-isolating devices apply to machines/equipment to be locked out/tagged out. (**NOTE:** More than one energy source may be involved).

5.2.5. A list of each type and locations of machine or equipment requiring lockout/tagout will be maintained within the work area. (**NOTE:** Machines/equipment with electrical cords and plugs, where the plug is under the control of the person performing the services or maintenance as outlined in paragraph 3.5, are not included in this survey of isolating devices).

5.2.6. Include the Lockout/Tagout Program as part of their self-inspection program as required by AFOSH Standard 91-45.

5.3. Employees will:

5.3.1. Seek assistance from their supervisor if questions or problems relating to lockout/tagout arise.

5.3.2. Comply with all provisions of this instruction, AFOSH Standard 91-45, and 29 CFR 1910.144, 29 CFR 1910.145, 29 CFR 1910.147, and 29 CFR 1910.333.

5.3.3. Utilize lockout/tagout procedures as written in AFOSH Standard 91-45.

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